

Notes on some British Phoridae (Diptera)
including Two Species of *Megaselia* Rondani
New to Science

By KENNETH G. V. SMITH*

The publication of the revised Diptera section of the British Check List (Colyer and Smith, 1976) necessitates some comments on the Phoridae. The initial manuscript for the Check List was submitted by the late Charles Colyer on 30th June, 1967, and revised for publication by myself. Some of the species included there have not been formally added to the British List. Furthermore, two new species of *Megaselia* which Colyer had recognised in manuscript are here described and illustrated so that they can be included in the Phoridae volume of Lindner's *Die Fliegen der Palaearktischen Region* (Schmitz, Beyer, Delage, 1938-) now being completed by Dr. Francoise-Alix Delage.

The species discussed here are, in the main, those recently discovered or recognised as British; purely nomenclatorial changes that are clear enough in the revised Kloet & Hincks are omitted.

As there are as yet no adequate published keys to the British fauna, the original description of each species is cited. The keys in Lindner's *Die Fliegen . . .* (Schmitz *et al.* 1938-) are of course invaluable, but incomplete.

METOPINIINAE

Megaselia (e.g. *Aphiochaeta*) *communiformis* Schmitz

Described from Holland (Schmitz, 1918) and now widely recorded in Europe, is known from only two British specimens: Suffolk, Orford, 3.viii.1908, ♀, J. J. F. X. King; Hampshire, Outwick, 8.ix.1952, ♂, C. N. Colyer.

Megaselia (*A.*) *curvicapilla* Schmitz

This species was described from Austria (Schmitz, 1947) and only two British specimens are known: Suffolk, Orford, 20.vii.1908, ♂, J. J. F. X. King; Hampshire, Ridley Wood, 15.vi.1949, ♂, C. N. Colyer.

***Megaselia* (*Aphiochaeta*) *dipsacosa* sp. n.**

♂. Frons broader than high at the eye-margin (7:4) but considerably produced anteriorly at the middle; dull blackish with thick greyish dusting, Fine hairs thickly distributed and rather long on the anterior margin, especially between the supra-antennal bristles. Frontal bristles very robust; antials standing a little lower than the anterolaterals and much nearer to them than to the upper supra-antennals. Supra-antennals equal and very strong, the upper not quite as far apart as the praecellars, the lower only half as far apart. Mediolaterals and praecellars almost in a straight row, only very slightly convex anteriorly. Third antennal segment somewhat large, brownish-black; arista very noticeably pubescent. Palpi (fig. 1) clear yellow, somewhat long and narrow, with pointed apex;

* Department of Entomology, British Museum (Nat. Hist.), London.

with six black bristles, four long, two much shorter, about one half to one third of the length of the others. The longer bristles at least twice the greatest width of the palp. Sometimes, also, a tiny hair-like ventral bristle near the middle.

Thorax greyish black, somewhat shining. The major bristles and dorsal pubescence black, the latter appearing pale brown in intense light and thickly set, becoming longer posteriorly to give a very hirsute appearance just before the scutellum, the hairs between the pair of pre-scutellar dorso-centrals being almost half as long as them (reminiscent of *vestita* Wood). Pleura greyish-black, dull, but with shining brownish-black areas on the lower part of the mesopleura and sternopleura. Mesopleura with about five slender bristles on the upper posterior corner, *not easily discerned* without close scrutiny. Scutellum two bristled, with a pair of tiny anterior hairs.

Abdomen long, narrow, black with greyish dusting, the hind margins of the tergites with paler seams, dirty greyish yellow, not so readily noticeable as in *verralli* (Wood). Venter black. Tergite 2 nearly one and a half times as long as tergite 3 and 3-6 approximately of the same length. Hairs on hind-margins of segments 2-5 short, but on the sides and hind-margin of 6 rather long, particularly ventrally. Hypopygium (figs. 2, 3) small, deeper than long, produced downwards to a rounded point on each side, the outline concave just below the anal tube; asymmetrical, the left claspers blunter than the right, i.e. the left rounded apically and the right more triangularly pointed. A few longish hairs on the sides anteriorly and on the lower margins and on the apex of each side a dense bunch of marginal bristles of a quite characteristic appearance, the posterior ones bent backwards at almost a right angle at the tip. Ventral plate blackish, short, somewhat spatulate, not usually evident. In some individuals, the internal copulatory organs exerted in varying degree; the two long curved narrow shining blackish processes being visible. Anal tube long, twice as long as the maximum height, the base narrowed, and the ventrite somewhat pointed, greyish, the apex somewhat paler yellowish-grey; all hairs on anal tube strong and the terminal hairs prominent.

Legs: forelegs, including the coxae, pale yellowish brown; mid-legs, excluding the coxae, likewise; hindlegs darker, glossy brownish. Fore tibiae just a little shorter than the combined length of the first three tarsal segments, which appear in one aspect somewhat stout; all fore tarsal segments progressively diminishing in width so that the apical is quite small. Basiventral hairs on femur 3 short, fine, decumbent, about 8-9 on basal third. Dorsal seam on tibia 3 evenly curved; posterodorsal cilia short and fine, about 15 in evidence in side view.

Wings (fig. 4) faintly greyish-tinged, veins brownish, the thin veins well pigmented. Outline rather broad, the anal angle more or less rectangular as in *pusilla* Meigen. Costal index 0.43; ratios of sections 24: 7: 7; 1 therefore more than one and a half times 2 + 3. Angle at fork a little acute, but the lumen

not small. Costal cilia fairly long (0.132 mm.), about 14 from the humeral cross vein, 5 in one row and four in the other, standing on 2 + 3. Vein 4 arising beyond the fork, origin obliterated, evenly curved throughout, very slightly recurved at the apex. Halteres, including the peduncle, black.

Length: 1.5 - 2.1 mm.; most specimens 1.5 - 1.6 mm.

♀. A single female taken at the same time agrees well with the male, except that the third antennal segment appears relatively smaller and the lower supra-antennals appear relatively somewhat weaker. The first three fore-tarsal segments also a little stout in one aspect. Length: 1.6 mm.

Holotype ♂, Paratypes 18 ♂, 1 ♀, Hertfordshire, Oughton Head, Hitchin, Herts, 2.vii.66, swept by fallen tree on bank of stream, C. N. Colyer. In British Museum (Nat. Hist.), except for 2 ♂ presented to Dr. F.-A. Delage.

This species clearly has affinities with *latifrons* (Wood), *crinita* Schmitz, *cirratula* Schmitz, *cirricauda* Colyer and *criniticauda* Colyer, and is also near *pusilla* (Meigen). From all of these (in the male) it is distinguishable by the characteristic hypopygium and by the annal angle of the wing in both sexes from all except *pusilla*. From *pusilla* it may be distinguished also by the clear yellow palpi, save that occasional specimens of *pusilla* appear with paler palpi, but *pusilla* is a much deeper black insect altogether in general colouration.

M. (A.) fuscipalpis Lundbeck

This species was described from Denmark. Earlier determinations of British material by Colyer proved to be *diversa* when checked by Schmitz. However, Colyer indicated inclusion of this as British on a single male: Somerset, Weston-super-Mare, 4.v.1957, E. A. Fonseca. This compared favourably with material from Lithuania. Colyer also had material from Estonia, Norway and Sweden (see Andersson 1971 for last).

M. (A.) hibernans Schmitz (1934, 1935).

According to Schmitz (1934) this species overwinters as adults in rabbit-burrows. It was described from Utrecht (Schmitz, 1935) and the following British specimens are known. Hampshire: Brook, 29.iii.1968, ♀, C. N. Colyer; New Forest, Rhinefield, 29.iii.1968, ♂, C. N. Colyer. Hertfordshire: Oughton Head, 15.iv.1967, ♂ ♀, 1.vi.1968, ♀, C. N. Colyer; Aldbury, 30.iv.1966, ♂, C. N. Colyer.

M. (A.) ignobilis Schmitz

This species was described from Finland (Schmitz, 1919) and is known in Britain as follows. Hampshire: Brockenhurst, several dates in vii.1907, ♂ ♂, J. J. F. X. King; New Forest, Denny Wood, 25.viii.1953, ♂, Burley, 30.vii.1953, 5 ♂, C. N. Colyer. Hertfordshire: New Barnet, 27.vi.1965, ♂, C. N. Colyer.

M. (A.) indifferens Lundbeck

This species was originally described from Denmark (Lundbeck, 1920) and has since been recorded from Sweden and Finland (Andersson, 1971). It is known from only one British locality. Scotland, Ross and Cromarty [Highland]: Dingwall, 5.vii.1909, ♀, 29.vii.1909, ♀, J. J. F. X. King.

M. (A.) pollex Schmitz

Originally described from Spain (Schmitz, 1937) it has since been found in Portugal and Parmenter (1966) recorded it from Blean Woods in Kent, 27.v.1964.

M. (A.) raetica Schmitz

Parmenter (1965, mis-spelt as *ractica*) added this species to the British List rather prematurely as Colyer was not confident of the determination. In his ms. files Colyer made a later insertion "1967, doubtful—see anal angle and vein 4 origin". He was sufficiently unsure not to include the species in his original ms. for the revised Kloet & Hincks.

M. (A.) subfraudulenta Schmitz

This species was described from Holland (Schmitz, 1933) and later recorded from Sweden (Andersson, 1971). It was included in Colyer's manuscript list of British species, but as yet I have found no British record. Possibly it was added erroneously by Colyer when he identified Andersson's Swedish material.

M. (A.) sordescens Schmitz

Described from Holland (Schmitz, 1927), the only British records are from Scotland, Inverness: Nethy Bridge, various dates vi, vii.1922-1923; Fort William: viii, 1921-1922, J. J. F. X. King.

M. (A.) subnitida Lundbeck

Described from Denmark (Lundbeck, 1920), this species is known in Britain from only two males in the British Museum (Nat. Hist.). Scotland, Inverness (Highland): Nethy Bridge, 17.vi.1922, J. J. F. X. King; Ross and Cromarty (Highland): Dingwall, 14.viii.1909, J. J. F. X. King.

M. (A.) superciliata Wood (= *consimilis* Lundbeck)

This synonymy has been established by Schmitz and Beyer (1974, *Fliegen Palaearkt. Reg.*, 33: 630).

M. (A.) tergata Lundbeck

Described from Denmark (Lundbeck, 1920, 1922) only the female was known until Colyer (1959) found both sexes in Britain (Delamere Forest, Cheshire, 31.v.1958). Since then he has found a further male at New Barnet, Herts., in 1964.

A key to Palaearctic *Aphiochaeta* is given by Schmitz, Beyer and Delage (1965).

Megaselia (s.g. *Megaselia*) *flammula* Schmitz

I can find no British provenance for this species, although Colyer included it in his manuscript list. It was described from Lapland (Schmitz, 1928) and later recorded from Sweden (Andersson, 1971).

M. (M.) curvivenia Schmitz

Described from Finland (Schmitz, 1928), Colyer (1969) has also found it in Spain and England. Its known British distribution is now as follows. Scotland, Inverness: Nethy Bridge, 5.vii.1910, ♀, J. J. F. X. King; England, Hertfordshire: Simondshyde, 6.vi.1949, ♀, C. N. Colyer.

M. (M.) largifrontalis Schmitz

This species was described from Portugal (Schmitz, 1939)

and is also known from Germany, Holland, Yugoslavia, Estonia and Spain. Parmenter (1966) first recorded British examples from Surrey: Headly, 11.vi.[19?] and other records are: Gloucestershire: Forest of Dean, 14.vi.1959, ♀, C. N. Colyer; Hertfordshire: New Barnet, 19.vii.1964, ♂, 28.vi.1965, ♂, Oughton Head, 22.vi.1967, ♂ (all C. N. Colyer); Berkshire: Tubney Wood, 20.iv.1957, ♂, E. A. Fonseca; Derbyshire: Langley Mill, 11.vii.1967, ♂, M. B. Green; Warwickshire: Minworth, 26.vii.1967, ♂, M. B. Green.

M. (M.) longifurca Lundbeck

Described from Denmark (Lundbeck, 1921) this species can be recorded from Britain as follows: Westmorland: Garrigill Nature Reserve, Moor House Reserve, 19, 31.iii.1964, ♂, 23.x.1965, ♂ (both ex "pulicaris") J. M. Nelson. Hampshire: New Forest, Rhinefield, 29.iii.1968, ♂ ♀, C. N. Colyer; Hertfordshire: Oughton Head, 20.iv.1968, ♂, C. N. Colyer.

M. (M.) luminosa Schmitz

Schmitz (1962) described this species from Holland and noted its occurrence via various misidentifications from Finland, Austria and England. This is the species keyed as *M. minor* (Zett.) by Wood (1909: 28) and recorded by him from Hereford. It can also be recorded in Britain from Suffolk: Orford, 19.viii.1908, ♀, J. J. F. X. King. Buckinghamshire: Seer Green, 11.ix.1933, ♀, E. B. Basden. Scotland, Inverness: Fort William, 15.viii.1921, ♂, J. J. F. X. King.

Megaselia (s.g. *Megaselia*) *setulifera* sp. n.

♀. Frons much broader than high (about 5:3) black, almost dull, a faint reflection apparent; ground hairs very weak, frontal bristles very large and robust. Antials a little closer to anterolaterals than to upper supra-antennals. Supra-antennals unequal, the lower much thinner and only a little more than half the length of the upper, which are set considerably closer together than the praeocellars; two or three noticeably strong ground hairs set between the upper supra-antennals and the antials. Antennae somewhat large, blackish-brown, thickly pubescent; arista also thickly pubescent. Palpi dark, brownish, with five robust bristles, and two shorter ones posteriorly to them at about the middle.

Thorax black, with brownish pubescence, shining in strong lighting; pleura somewhat more brownish, especially anteriorly, with a small palish area at the humeri; shining brownish in the lower area between the fore and mid-coxae; mesopleura bare. Scutellum two bristled.

Abdomen black, somewhat shining, the hairs longish only on the lateral margins, especially the second segment, also on the hind-margin of the sixth. Segment II longer and wider than the remainder and somewhat constricted anteriorly, segments III, IV and V of about equal length and gradually decreasing in width; segment VI much narrower anteriorly than the hind margin of V, and a little longer than V, tapering fairly quickly to a truncated hind-margin with rounded hind-apical corners; segments VII and VIII tubular, chitinised; cerci paler with rather long hairs. Venter black.

Legs, with the exception of the paler fore-coxae, dark, brownish. Fore-tarsi a trifle stout, but not dilated, the segments gradually decreasing in length and width so that segment V is slim, but like all the tarsi with fairly well developed pulvilli and claws. Fore tibiae with a posterodorsal row of longish, fine cilia or setulae well differentiated with the other tibial hairs. Hind tibiae with dorsal seam evenly curved; posterodorsal cilia fine and short, about 18 in number.

Wings distinctly yellowish-grey tinged, the veins brown; thin veins well pigmented. Costal index 0.5; ratios 49:38:20. Costal cilia long, about 17-18 from the humeral cross-vein onwards, the first two or three very short, the remainder gradually increasing in length. Halteres, including the peduncle, dark, brownish-black.

Length: 2 mm. (body curved).

Holotype ♀, Cheshire, Delamere Forest, 3.iv.1959, C. N. Colyer. In British Museum (Nat. Hist.) London. Paratype ♀, Shropshire, Walford, near Baschurch (near Shrewsbury), 22.x.1974. Obtained from an emergence trap being operated by Dr. F. I. Henderson (Rothamsted Experimental Station) and Mr. R. O. Clements (Grassland Research Institute). The trap was situated in grassland at the Shropshire Farm Institute. In collection of Dr. R. H. L. Disney.

This species would lead to *setifera* Lundbeck in Lundbeck's keys (1922) but is differentiated by the shorter costa and different coastal ratios, different position of antial bristles, and somewhat larger size (although only the ♀ of this species is known, and only the ♂ of *setifera*).

M. (M.) zonata Zetterstedt

This is known as British from only four specimens in the British Museum (Det. Schmitz and Colyer), all from Scotland. Ross and Cromarty (Highland) Dingwall, 27.vii.1909, ♀, J. J. F. X. King; Inverness (Highland) Nethy Bridge, 25, 29.vii.1923, 2 ♂, ♀, J. J. F. X. King.

Plastophora luteipes Schmitz

Parmenter (1965) recorded this species as British, but Colyer in his files has a ms. note "Schmitz (*in litt.* 7.xii.1950) determines as *simulans* Wood ♀" and he thus omitted it from the Check List.

P. pictorufa Colyer

Colyer (1957) redefined the concept of this genus and described this species from a single ♀, Cheshire, Delamere Forest, 26.vi.1954, C. N. Colyer. Later he (Colyer & Elberg, 1969) produced a revised key to world species.

PHORINAE

Cheatopleurophora spinosissima (Strobl)

Described from Austria (Strobl, 1892) this species is known from Britain as follows: Somerset: N. Wortlebury, nr. Weston-super-Mare, 4.v.1957, ♀, E. A. Fonseca, Bourton Coombe, 3.v.1958, ♂, E. A. Fonseca.

Citrango collini Schmitz

Described from England (Herefordshire, J. E. Collin) by

PLATE XIII



Figs. 1-5: 1-4 *Megaselia (Aphiochaeta) dipsacosa* sp.n.; 1, male palp; 2, hypopygium in left lateral view; 3, hypopygium in right lateral view; 4, male wing; 5, *Megaselia (Megaselia) setulifera* sp.n., female wing.

